

REMARKS

Claims 1-23 are currently pending in the subject application and are presently under consideration. Claims 1, 14, and 22 have been amended as shown on page 4 of the Reply.

Applicant's representative thanks Examiner Wang for the courtesies extended during the telephonic interview conducted on April 3, 2008. During the interview, applicant's representative explained the features set forth in the independent claims that distinguish the present invention from cited references Parrish, Sarma, *et al.*, Ziebell, and Hannel, *et al.* The Examiner indicated that he would review the claims in view of the explanations given, and perform an additional art search if necessary. The Examiner also requested that additional amendments be made to independent claim 22 to clarify the function of the Preserve option disclosed in that claim. That claim has been amended accordingly in deference to the Examiner's wishes.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

I. Rejection of Claims 1-13 Under 35 U.S.C. §103(a)

Claims 1-13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Parrish (USPN 5,752,245), in view of "Palantir: Raising Awareness among Configuration Management Workspaces", by Anita Sarma, Zahra Noroozi, and Andre van der Hoek (2003 IEEE). It is respectfully submitted that this rejection should be withdrawn for at least the following reasons. Parrish and Sarma, *et al.*, individually or in combination, do not teach or suggest each and every feature set forth in the subject claims.

A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning. See *KSR v. Teleflex*, 550 U.S. ___, 127 S. Ct. 1727 (2007) citing *Graham v. John Deere Co. of Kansas City*, 383 U. S. 1, 36 (warning against a "temptation to read into the prior art the teachings of the invention in issue" and instructing courts to "guard against slipping into the use of hindsight'" (*quoting Monroe Auto Equipment Co. v. Heckethorn Mfg. & Supply Co.*, 332 F. 2d 406, 412 (CA6 1964))).

The subject claims relate to archival of software development works in progress within a

version control system. Developers working on a software project in a local workspace can submit intermediate versions of the software to a storage repository using a concept known as shelving. When a developer decides to shelve a software work in progress, he or she can opt to have the local versions of the associated software files restored to their unaltered versions as part of the shelving process. Hence, shelving a software work can archive any pending changes made since the last restored version of the software, and can also remove those changes from the local version of the software. In particular, independent claim 1 recites, *a shelving component that captures a current state of an intermediate software design containing pending changes developed on a private workspace and stores the captured state to a central repository, the shelving component removes the pending changes from the software design on the private workspace after the current state has been captured.*

As conceded in the Office Action, Parrish does not teach or suggest these aspects of the subject claims. Contrary to the Examiner's contentions, Sarma, *et al.* likewise fails to disclose removal of pending changes from a local version of a software project upon shelving of the changes. Sarma, *et al.* relates to a software configuration management system (called Palantir) that collects information pertaining to changes made to a software asset on a local developer workstation, and distributes this information to other developer workstations on which the same asset is being developed or modified in parallel. The Examiner cites a passage in Sarma, *et al.* explaining that a developer can commit multiple changes to a software artifact on a local workstation before removing the artifact from the workspace, and asserts that this disclosure reads on the aforementioned features of the shelving component. However, it is nowhere suggested in this passage, or indeed anywhere in the cited reference, that such a removal results in *removal of pending changes from a software design on the local workspace*. Although not explicitly stated in the reference, it is more likely that removal of an artifact from a workspace, as the concept is described in Sarma, *et al.*, entails removal of *the entire artifact* from the local workspace for archival in a repository. In any case, removal of pending changes from a design on a private workspace upon capturing the design's state is neither taught nor suggested by Sarma, *et al.*, either in the cited portion or elsewhere. The subject claims, by contrast, recite that the shelving component can remove the pending changes from the local version of a software design, rather than the entire software design itself, upon capturing the current state of the design. This removal of pending changes can facilitate restoration of a pre-modified version of

the design to remain in the private workspace after shelving, thereby allowing the developer to begin a new design thread on the pre-modified design without losing the previously developed design changes. Sarma, *et al.* does not provide such a benefit.

In view of at least the foregoing, it is respectfully submitted that Parrish and Sarma, *et al.*, individually or in combination, do not teach or suggest each and every feature set forth in independent claim 1 (and all claims depending there from), and as such fail to make obvious the subject invention. It is therefore requested that this rejection be withdrawn.

II. Rejection of Claims 14, 15 and 22 Under 35 U.S.C. §103(a)

Claims 14, 15 and 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ziebell (USPN 6,385,768), in view of “Palantir: Raising Awareness among Configuration Management Workspaces”, by Anita Sarma, Zahra Noroozi, and Andre van der Hoek (2003 IEEE). However, amended independent claim 14 recites, *means for developing pending changes on non-finalized software on a private workspace; means for **archiving the non-finalized software with pending changes** to a version control system; means for capturing one or more states associated with the non-finalized software;[and] means for **removing the pending changes from the non-finalized software on the private workspace upon archival***. As discussed *supra*, Sarma, *et al.* does not disclose removal of pending changes from a software asset on a private workspace upon archival of the software asset. However, Ziebell fails to remedy these deficiencies of Sarma, *et al.* Ziebell relates to a version control program whereby various revisions of a software project are stored in an architecture of branches and streams implemented on a server. Revisions to a software project can be checked into the archive system as a series of “deltas,” which contain information about the updates made to a source revision. These deltas can be selectively applied to a software revision stored on a stream of a revision tree to create a new revision on the stream. However, Ziebell does not disclose that pending changes on a local version of non-finalized software are *removed from the local version* (that is, the copy on the private workspace) when the software including the pending changes is archived. Although Ziebell teaches that such updates or changes to a software version can be stored as deltas on an archive system, the cited reference nowhere discloses that such changes are *removed from the software version on the private workspace* upon archival.

Similarly, independent claim 22 recites, *a shelving command input to enable users to*

*archive the intermediate files with pending changes to a version control system as if the intermediate files were finalized versions of the intermediate files, **archiving removes the pending changes from the intermediate files on the private workspace unless the user selects a preserve option associated with the shelving command**, selection of the preserve option causes the pending changes to be maintained on the private workspace when the intermediate files are archived.* As already discussed, neither Sarma, *et al.* nor Ziebell teach or suggest removal of pending changes from an intermediate version of code on a private workspace upon archiving the intermediate version. The cited references therefore also fail to disclose a *preserve option* associated with the shelving command that overrides removal of pending changes from the intermediate files, and instead preserves the pending changes on the intermediate files.

In view of at least the foregoing, it is respectfully submitted that Sarma, *et al.*, alone or in combination with Ziebell, does not disclose all features set forth in independent claims 14 and 22 (and claim 15, which depends from independent claim 14), and as such fails to anticipate the present invention. This rejection should therefore be withdrawn.

III. Rejection of Claims 16-21 Under 35 U.S.C. §103(a)

Claims 16-21 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Parrish (USPN 5,752,245), in view of “Palantir: Raising Awareness among Configuration Management Workspaces”, by Anita Sarma, Zahra Noroozi, and Andre van der Hoek (2003 IEEE), and further in view of Hannel, *et al.* (USPN 7,272,625 B1). However, it is respectfully submitted that the cited references do not teach or suggest all aspects set forth in the subject claims.

In addition to the features already discussed, the subject claims disclose that shelved software versions can be unshelved to a private workspace. Unshelving an archived work restores the private workspace to a previously archived state so that development can continue from that state. Permissives associated with the unshelve action can be a function of ownership of the archive being unshelved. For example, when an archived work is unshelved by the owner of the work, the archive can be deleted from the server as part of the unshelve action. Alternatively, when a non-owner unshelves another user’s work, the archives can be preserved on the server. In particular, claim 16 recites, *unshelving the version of software to a private workspace in accordance with the state, the version of software is deleted from the version control system when unshelving is initiated by an owner of the software, and the version of*

software is preserved on the version control system when unshelving is initiated by a non-owner of the software.

Neither Parrish nor Sarma, *et al.* disclose these aspects of the subject claims, as conceded in the Office Action. The Examiner contends that Hannel, *et al.* makes up the deficiencies of those references. Hannel, *et al.* relates to a system that controls access to data in a distributed environment using a policy database. Policies regarding access to data are stored in a policy database, and requests to perform actions on the data are granted only if the requested action is permissible in view of the defined policies. The Examiner ostensibly cites Hannel, *et al.* in order to disclose access controls based on identification of a user as an owner or non-owner. However, although Hannel, *et al.* teaches that policies regarding data access can be a function of the identity of a user requesting access to the data, the cited reference in no way teaches or suggests that a version of software can be deleted from a version control system when unshelved by an owner of the software, and alternately preserved on the version control system when unshelved by a non-owner of the software. Rather, the policies disclosed in Hannel, *et al.* are applied to determine if a request to perform an action on data is to be allowed or denied. In the case of the unshelve feature disclosed in independent claim 16, the unshelve request can be granted to *both* owners and non-owners of a software version. The user-based distinction lies in whether to subsequently delete the shelved version or to preserve it. It therefore cannot be said that Hannel, *et al.* reads on these features, since the identity of the user submitting a request to unshelve a software version does not determine whether the request will be allowed or denied.

In view of at least these deficiencies, it is respectfully submitted that Hannel, *et al.* fails to remedy the deficiencies of Parrish and Sarma, *et al.* with respect to the features of independent claim 16 (and claims 17-21, which depend there from). It is therefore requested that this rejection be withdrawn.

IV. Rejection of Claim 23 Under 35 U.S.C. §103(a)

Claim 23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Ziebell (USPN 6385768 B1), in view of “Palantir: Raising Awareness among Configuration Management Workspaces”, by Anita Sarma, Zahra Noroozi, and Andre van der hock (2003 IEEE), and further in view of Hannel *et al.* (USPN 7,272,625). However, claim 23 recites, *an unshelving command that restores local versions of selected files on the version control system to*

a previous state, the selected files are deleted from the version control system when the unshelving command is initiated by an owner of the files, and the selected files are maintained on the version control system when the unshelving command is initiated by a non-owner of the files. As noted in the previous section of the Reply, Sarma and Hannel, *et al.* fail to disclose an unshelve command that selectively deletes or maintains the shelved version of files based on the identity of the user issuing the unshelve command as either an owner or non-owner of the files. Parrish is also silent regarding these aspects, as conceded by the Examiner on page 15 of the Office Action.

Moreover, claim 23 depends from independent claim 22, and as already discussed, the cited references fail to teach or suggest a shelving command that removes pending changes from intermediate files on a private workspace after archiving the intermediate files.

In view of at least the foregoing, it is respectfully requested that this rejection be withdrawn with respect to claim 23.

CONCLUSION

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP572US].

Should the Examiner believe a telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,

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